

Clarke®

POWER



GENERATOR

MODEL NO: FG3005

PART NO: 8857707

OPERATION & MAINTENANCE INSTRUCTIONS



LS0413

INTRODUCTION

Thank you for purchasing this CLARKE Generator.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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GENERAL SAFETY RULES



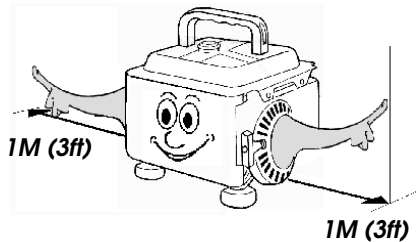
WARNING: EXHAUST FUMES CAN BE EXTREMELY DANGEROUS IF INHALED

WORK AREA

- *Always use in a well ventilated area.*
- *Always position the exhaust outlet away from people.*
- *Never use indoors or in a confined space.*
- *Read these safety instructions before using the equipment.*
- *Keep children away from the generator*

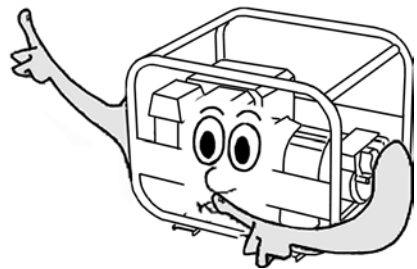
POSITIONING THE GENERATOR

1. **Always** leave a least a 1M gap between the generator and any surrounding building or structures.
2. **Always** ensure the generator is on a solid, flat surface.
3. **Always** ensure the surrounding area is free from any material that could burn or be damaged by heat.
4. **Never** move or tilt the generator whilst it is switched on.



FIRE PREVENTION

1. **Always** switch the engine OFF when refuelling.
2. **Always** refuel away from any source of heat.
3. **Always** refuel in a well ventilated area.
4. **Never** overfill the tank, fill to the level specified (See "Checking the fuel level" on page 10.).



5. **Never** smoke whilst refuelling and avoid smoking or using a naked flame near the generator.
6. **Never** start the engine if there is spilled fuel. Any spillage must be wiped clean and the generator allowed to dry before attempting to start the engine.

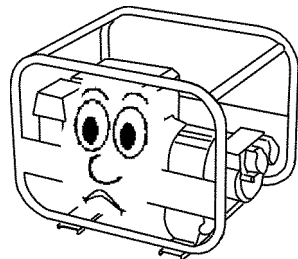
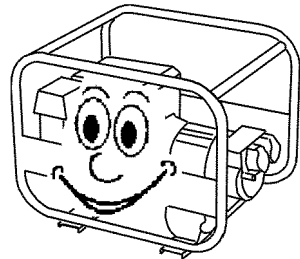
PREVENTION OF ELECTRIC SHOCK

1. **NEVER** use the generator in wet conditions unless it is well protected/covered. Under these conditions, adequate ventilation **MUST** be provided.
2. **NEVER** operate the generator with wet hands.
3. **NEVER** use water or any other liquids to clean the generator.
4. **NEVER** allow the generator air vents to become blocked.



ADDITIONAL SAFETY RULES FOR GENERATORS

1. **Always** ensure the applied load does not exceed the generator rating. Overloading the generator is dangerous and could cause serious damage.
2. **Always** disconnect the generator when carrying out any maintenance.
3. **Always** ensure the generator reaches operating speed before connecting a load.
4. **Never** allow the generator to run out of fuel when a load is connected.
5. **Never** transport the generator with fuel in the tank.
6. **Do Not** connect to a commercial or residential power supply; e.g. ring main.



SAFETY SYMBOLS



Caution - The user should be aware of a general hazard



Dangerous Voltage



Flammable



Hot Surface - Do not touch

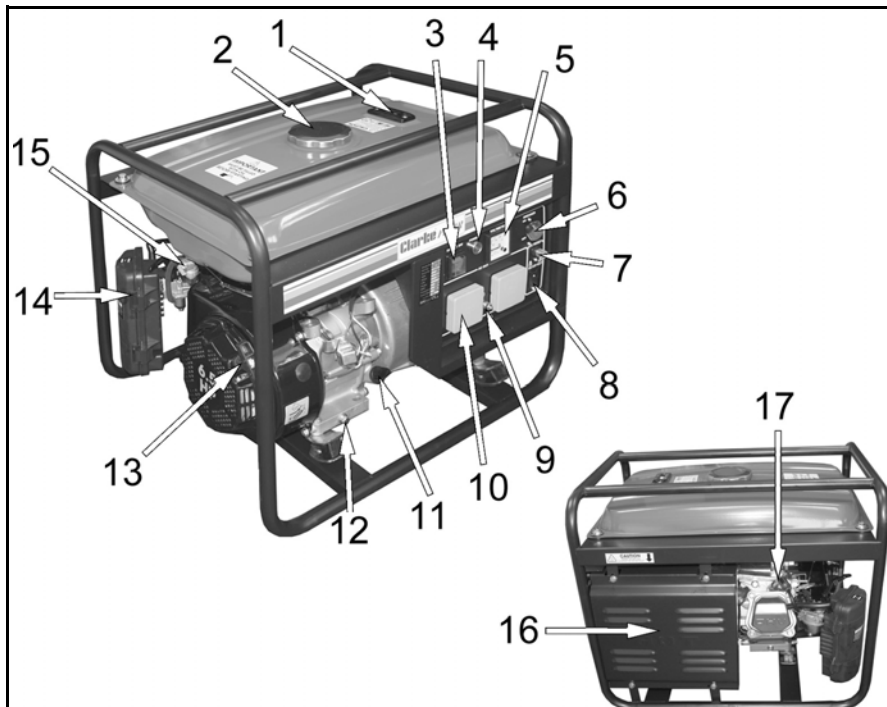


Poisonous fumes - Do not use the generator in an enclosed space.



Read Instruction manual before use.

GENERATOR OVERVIEW



NO	DESCRIPTION	NO	DESCRIPTION
1	Fuel level gauge	10	AC plug sockets (2 x 230V)
2	Fuel tank cap	11	Dipstick
3	Engine on/off switch	12	Drain plug
4	Power Indicator	13	Starting handle
5	Voltmeter	14	Air filter
6	AC breaker	15	Fuel supply valve
7	DC reset Button	16	Muffler
8	DC 12V outlet	17	Spark plug
9	Earth Terminal		

UNPACKING AND ASSEMBLY

Inside the box there should be. The Generator, Spark Plug Box Spanner, Tommy Bar and 12 Volt DC Battery Charging Lead

If any are missing or have been damaged in transit, speak to your Clarke dealer immediately.

BEFORE USING THE GENERATOR

IMPORTANT: Generators should ALWAYS be earthed.

Attach a suitable earth lead to a good earth - water pipe, ground spike etc., whenever you use this generator.

Before using your generator make sure that the generator is:

- in good condition and not damaged.
- clean and free from fuel or oil spillage.
- correctly located for use (See page 4).
- The fuel system and connectors are intact and there is no leakage.

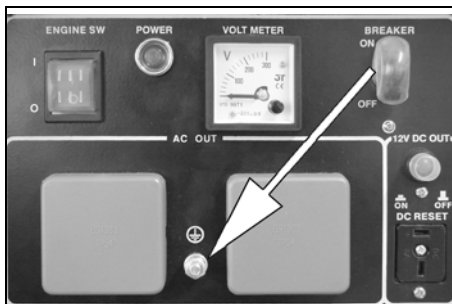
NOTE: Always use a funnel to fill the fuel tank. If fuel is spilt it must be cleaned up before you start the engine.



WARNING: ENSURE THERE IS ADEQUATE FUEL IN THE TANK WHEN USING THE GENERATOR. RUNNING OUT OF FUEL OR STOPPING THE ENGINE SUDDENLY WITH A LOAD CONNECTED COULD CAUSE SERIOUS DAMAGE.

EARTH POINT

Always connect the generator to an earth point. The earth terminal is shown on the right.



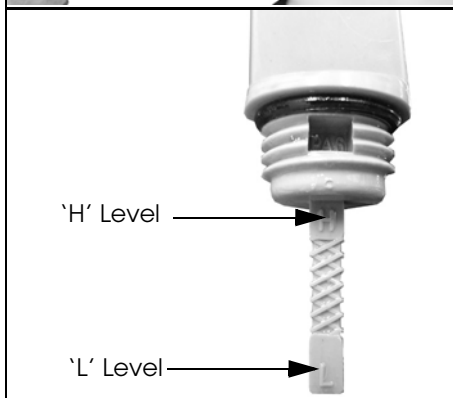
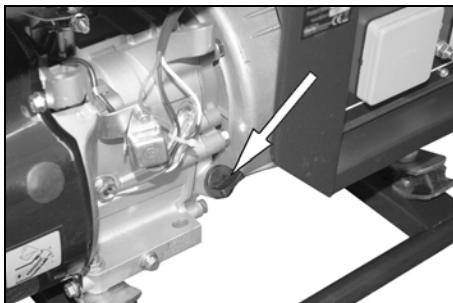
CHECKING THE ENGINE OIL LEVEL



WARNING: TO CARRY OUT THIS CHECK, PLACE THE GENERATOR ON LEVEL GROUND WITH THE ENGINE SWITCHED OFF (O).

WARNING: TAKE CARE NOT TO TOUCH ANY HOT PARTS OF THE GENERATOR WHEN CHECKING THE OIL LEVEL.

1. Turn the oil filler cap counterclockwise and remove from the oil tank,
2. Clean the dipstick with a cloth.
3. Put the dipstick back into the oil filler tube and then remove it again.
 - Do not screw it in when doing this.
4. If the oil is below the 'L' level on the dipstick, fill the oil reservoir to the 'H' level on the dipstick.
 - Oil Capacity (See "Specifications" on page 21.)
 - We recommend the use of SAE30 oil in this generator.
5. Replace the oil filler cap.

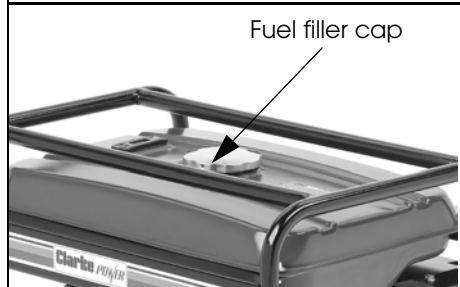


CHECKING THE FUEL LEVEL

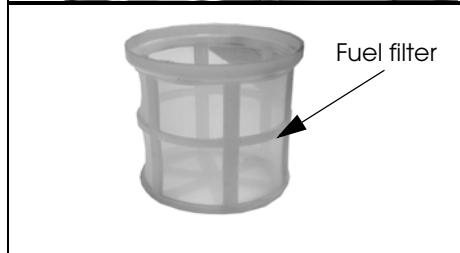
1. Check the fuel level on the fuel gauge (located on the top of the generator).
The fuel gauge will show as red when you have fuel in the tank turning white as the fuel level decreases.



2. To add fuel, remove the fuel filler cap.



3. Just inside the fuel tank is a fuel tank filter, check this filter periodically and remove any contaminants which may have accumulated.
4. Slowly add fuel to the fuel tank (maximum 15L) watching the fuel level gauge as you do so.



RECOMMENDED FUEL

We recommend the use of standard unleaded petrol.



WARNING: ALWAYS REFUEL IN A WELL VENTILATED AREA AWAY FROM ANY HEAT SOURCES.

WARNING: ALLOW THE UNIT TO COOL DOWN BEFORE REFUELLING.

WARNING: DO NOT LEAVE FUEL WITHIN THE REACH OF CHILDREN.

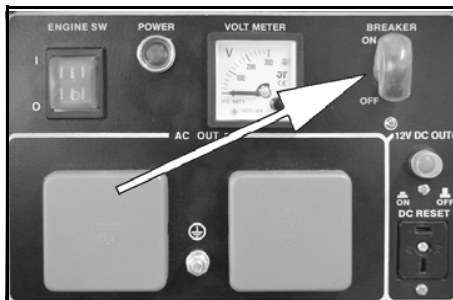
NOTE: Do not overfill the fuel tank.

5. Replace the fuel filler cap securely.

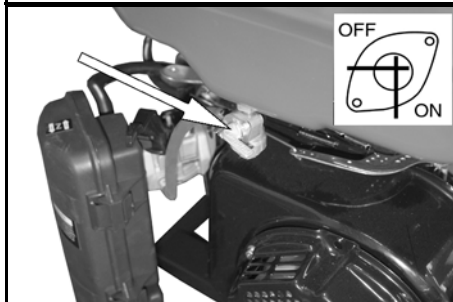
USING YOUR GENERATOR

STARTING THE ENGINE

1. Remove all connections from the AC sockets.
2. Set the breaker to the off position.



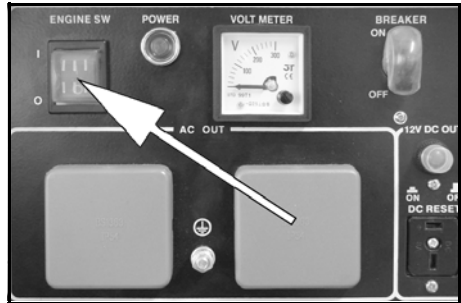
3. Turn the fuel supply valve to the 'on' position.



4. If you are starting the generator 'cold', set the choke lever to the ON position. If the generator is warm skip this step.

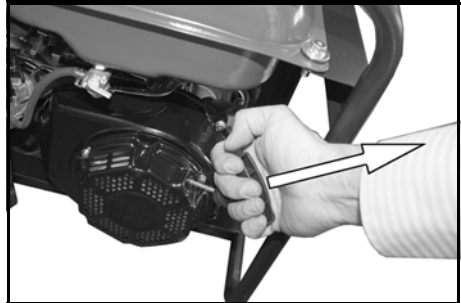


5. Set the engine switch to 'I'



6. Pull the starting handle lightly until you start to feel resistance and then pull up sharply to start the generator.

NOTE: You may have to do this more than once.



WARNING: ONCE THE GENERATOR HAS STARTED, RELEASE THE STARTING HANDLE SLOWLY TO AVOID INJURY/DAMAGE AS IT WHIPS BACK.

7. Once the engine has warmed up, set the choke lever to the 'RUN' position.

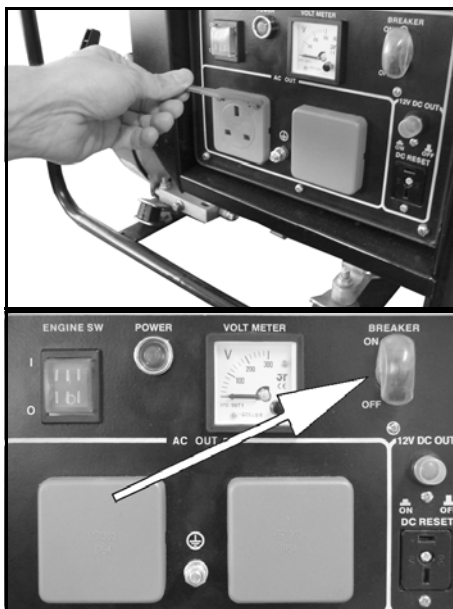


CONNECTING ELECTRICAL DEVICES

The generator can supply both 230V AC and 12V DC.

AC POWER

1. Start the engine. See page 11.
2. Make sure the appliance is turned off before connecting it to the generator.
3. Set the breaker to 'ON'.
4. Connect the appliance to the generator starting with the device that draws the most current.



CAUTION: MAKE SURE THAT THE APPLIANCE BEING CONNECTED IS IN GOOD WORKING ORDER, IF IT BEGINS TO ACT ABNORMALLY OR STOPS SUDDENLY, DISCONNECT IT FROM THE GENERATOR

CAUTION: MAKE SURE THE APPLIANCE DOES NOT EXCEED THE MAXIMUM RATED LOAD FOR THE GENERATOR.

CAUTION: ANY DEVICE WITH CONTAINS AN INDUCTIVE LOAD E.G. DEVICES THAT CONTAIN A MOTOR MAY REQUIRED MORE CURRENT ON STARTUP.

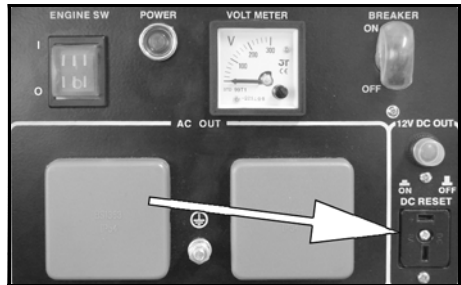
DC POWER

(For charging car batteries only.)



CAUTION: MAKE CONNECTIONS TO THE BATTERY AFTER STARTING THE ENGINE.

1. Start the engine. See page 11.
2. Connect the battery charging leads to the battery.
 - Clamp the red wire to the positive (+) terminal and the black wire to the negative (-) terminal of the battery. Do not reverse these positions.
3. Connect the battery charging leads to the generator.

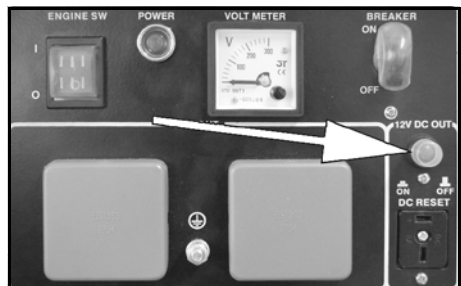


WARNING: TO PREVENT THE POSSIBILITY OF CREATING A SPARK NEAR THE BATTERY, DISCONNECT THE CABLE TO THE GENERATOR FIRST AND THEN DISCONNECT THE BATTERY

WARNING: AFTER YOU HAVE CHARGED THE BATTERY, ALWAYS DISCONNECT THE NEGATIVE LEAD FIRST.

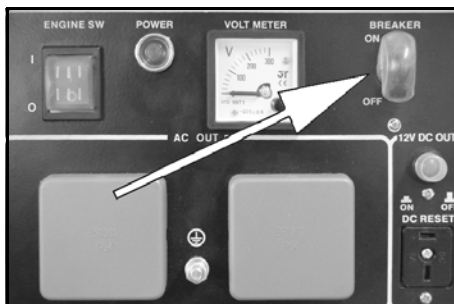
DC OVER LOAD PROTECTOR

If the DC overload protector activates, wait for a few minutes and then press the reset button shown on the right.

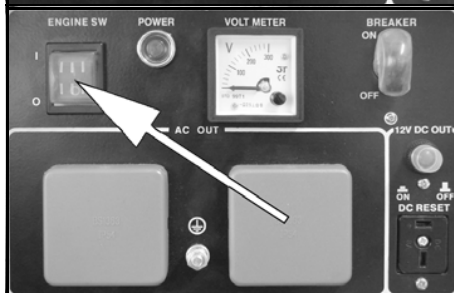


SHUTTING DOWN THE GENERATOR

1. Disconnect all appliances connected to the generator.
2. Set the breaker to 'OFF'.

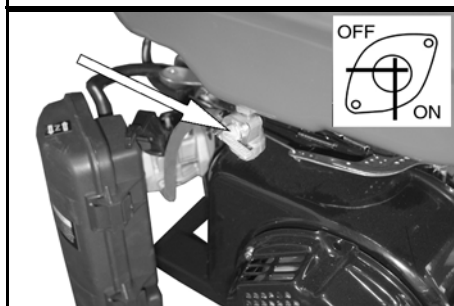


3. Set the engine switch to 'O'.



4. Set the fuel supply valve to 'OFF'.

NOTE: To stop the generator in an emergency simply set the engine switch to 'O'.



Maintenance

CHANGING THE ENGINE OIL



CAUTION: PROLONGED EXPOSURE TO USED ENGINE OIL IS DANGEROUS, ALWAYS WASH YOUR HANDS THOROUGHLY AFTER HANDLING USED ENGINE OIL.

1. Unscrew and remove the oil filler cap/dipstick.
2. Place a oil collection tray under the drain plug.
3. Unscrew the drain plug, and allow the used engine oil to drain from the crankcase into the oil collection tray.

NOTE: Drain the engine oil when the engine is warm, this will ensure the oil flows out quicker.

4. Replace the drain plug and its seal ring.
5. Fill the crankcase with engine oil to the 'H' mark on the dipstick. See page 9.
6. Replace the oil filler cap/dipstick.

ENVIRONMENTAL PROTECTION

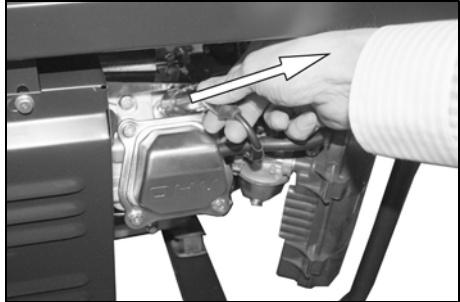
One of the most damaging sources of pollution is oil, do not throw away used engine oil in with your domestic trash or down drains and sinks. Place it in a leak proof container and take it to your local waste disposal site.

CHANGING THE SPARK PLUG



CAUTION: ALLOW THE ENGINE TO COOL BEFORE REMOVING THE SPARK PLUG.

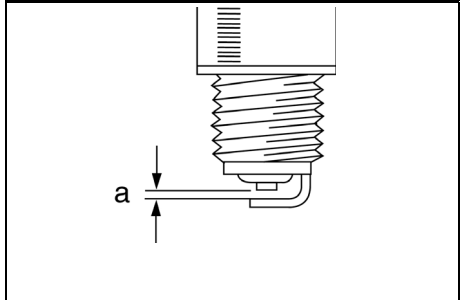
1. Remove the spark plug cap from the spark plug.



2. Use the supplied spark plug spanner to remove the spark plug.
3. Remove any carbon that has accumulated around the sparkplug.



4. Check the spark plug gap (a), it should be between 0.7 and 0.8 mm, adjust if necessary.
5. Check the overall condition of the spark plug and replace if necessary.
6. Reinstall the spark plug and replace the spark plug cap.

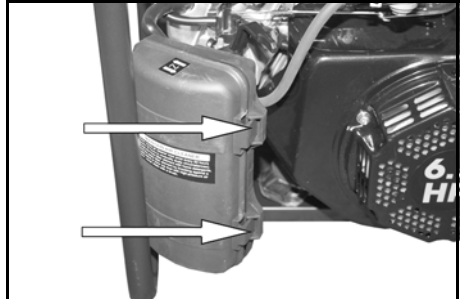


CHECKING THE AIR FILTER



CAUTION: DO NOT USE THE GENERATOR WITHOUT THE AIR FILTER FITTED, THIS CAN DAMAGE THE GENERATOR.

1. Unlock and remove the air filter cover.



2. Remove the air filter element.

3. Make sure that the air filter is clean and not damaged.

- If the air filter is damaged contact Clarke spare parts department for a replacement.
- If the filter is dirty, wash the filter in a solution of warm water and mild detergent and rinse thoroughly. Leave the filter to dry completely, once it is dry immerse the filter in clean engine oil and squeeze the filter to remove excess oil.

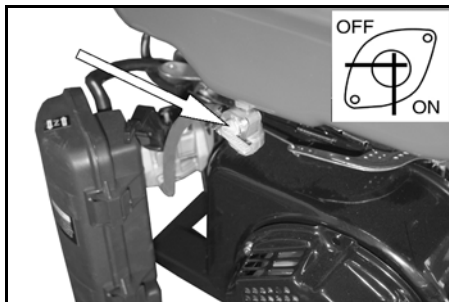


WARNING: DO NOT USE INFLAMMABLE SOLVENTS OR PETROL TO CLEAN THE AIR FILTER.

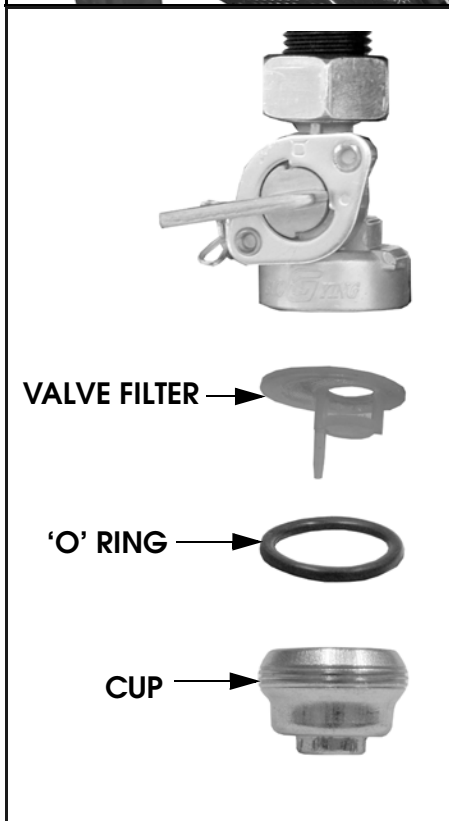
4. Replace the filter back into its original position and replace the air filter cover.

CLEANING THE FUEL VALVE FILTER / DRAINING THE FUEL TANK

1. Set the fuel supply valve to OFF.



2. Unscrew and remove the cup, then remove the valve filter and 'O' ring.
3. Wash these parts in a non-flammable solvent. Make sure that the valve filter is not damaged.
4. Place an approved petrol storage container under the fuel valve and set the fuel supply valve to 'ON'.
 - The fuel in the tank will drain into the container.
5. Replace the 'O' ring and valve filter and tighten the cup as far as possible.



TROUBLESHOOTING

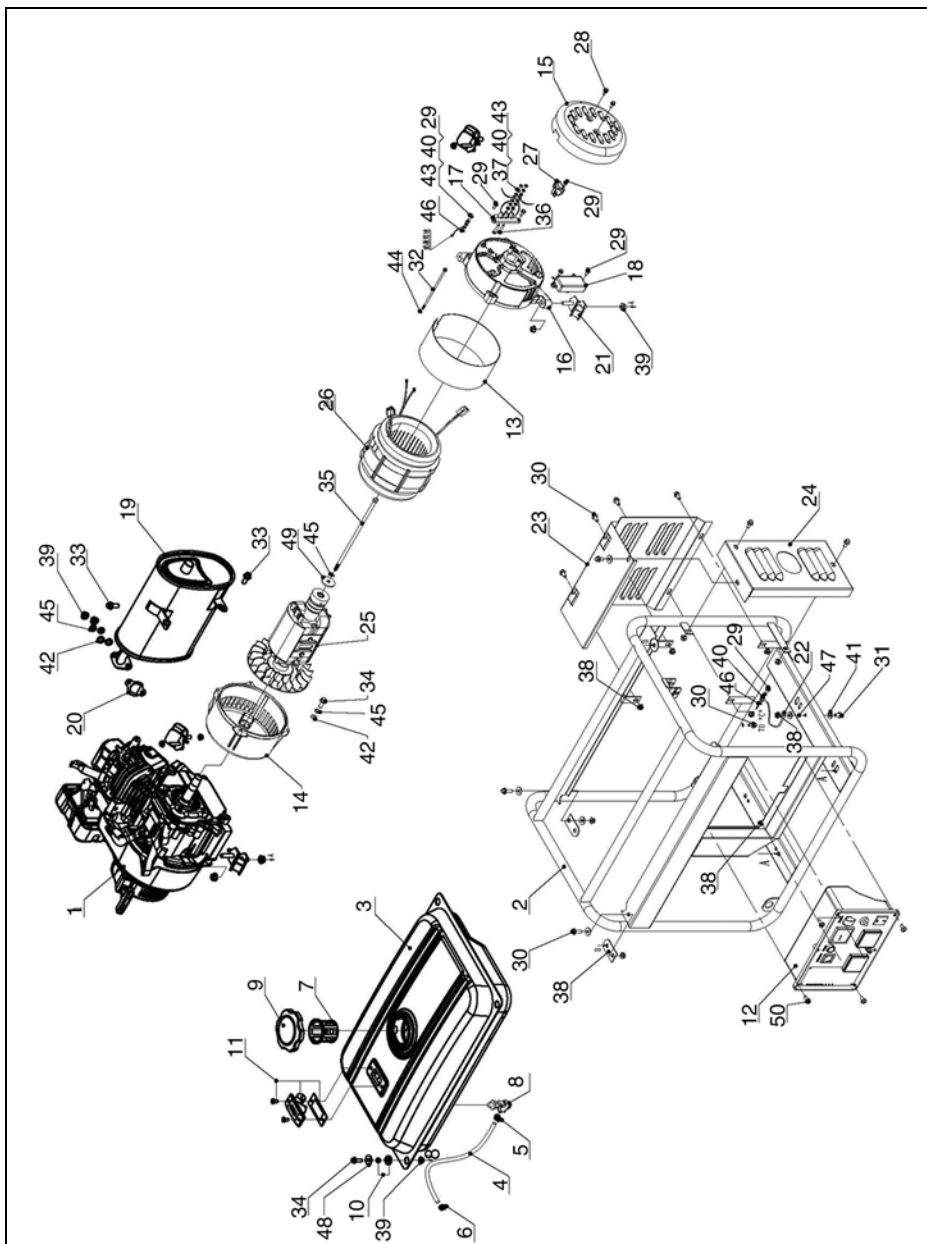
PROBLEM	CAUSE	SOLUTION
The generator fails to start	Engine switch is off	Set the engine switch to 'I'
	Not enough oil in the generator	Add more oil, See page 9
	No fuel	Add more fuel, See page 10
	Spark plugs not working correctly	Change the spark plugs, See page 17
The generator fails to generate electricity	The device you are trying to power is faulty	Make sure the device you want to power is working properly
	The AC breaker is switched off	Switch the AC breaker on
The generator is difficult to start	The air filter is dirty	Clean the air filter, See page 18
	The fuel filter is dirty	Clean the fuel filter, See page 19

If this does not solve your problem, please contact the Clarke service department.

SPECIFICATIONS

Engine	Engine Model	UP170
	Type	Petrol air cooled 4-Stroke OHV single cylinder
	Displacement (cm ³)	208
	Max. power output (HP/rpm)	7.0 / 3600
	Ignition type	Magneto
	Start system	Recoil
	Fuel tank capacity (L)	15
	Fuel consumption (L/h)	1.4
	Duration of run (h)	11
	Engine oil capacity (L)	0.6
	Guaranteed sound power (LWA dB)	96
Generator	Rated Frequency (Hz)	50
	Rated Voltage (V)	230
	Rated Power (kVA)	2.6
	Max. Power (kVA)	2.8
Dimensions	Length (mm)	592
	Width (mm)	498
	Height (mm)	432
	Unpacked Weight (kg)	45

EXPLODED PARTS DIAGRAM



PARTS LIST

NO	DESCRIPTION	PART NO
1	UP170-41 Engine	RKFG300501
2	Frame	RKFG300502
3	Fuel Tank	RKFG300503
4	Φ4.5mm Fuel Pipe	RKFG300504
5	Φ8 Clamp	RKFG300505
6	Φ7 Clamp	RKFG300506
7	Fuel Tank Filter	RKFG300507
8	Fuel Switch	RKFG300508
9	Fuel Tank Cap	RKFG300509
10	Shock Absorption	RKFG300510
11	Fuel Marker Assembly	RKFG300511
12	Control Pannel	RKFG300512
13	Alternator Guard Board	RKFG300513
14	190 Front End Cover	RKFG300514
15	190 Rear End Cover Guard	RKFG300515
16	190 Rear End Cover	RKFG300516
17	Wire Fasten Connection	RKFG300517
18	AVR	RKFG300518
19	Muffler	RKFG300519
20	Mufler Gasket	RKFG300520
21	Shock Absorption	RKFG300521
22	Grounding Wire	RKFG300522
23	Muffler Side Guard	RKFG300523
24	Muffler Outside Guard	RKFG300524
25	Rotor	RKFG300525
26	Stator	RKFG300526
27	Carbon Brush	RKFG300527
28	Flange Bolt M5x12	RKFG300528
29	Flange Bolt M5x16	RKFG300529
30	Flange Bolt M6x12	RKFG300530
31	Flange Bolt M6x14	RKFG300531
32	Bolt M6x130	RKFG300532

NO	DESCRIPTION	PART NO
33	Flange Bolt M8x20	RKFG300533
34	Bolt M8x25	RKFG300534
35	Bolt 5/16-210	RKFG300535
36	Full-thread Bolt M5x20	RKFG300536
37	Nut M5	RKFG300537
38	Flange Nut M6	RKFG300538
39	Flange Nut M8	RKFG300539
40	Flat Washer Φ5	RKFG300540
41	Flat Washer Φ6	RKFG300541
42	Flat Washer Φ8	RKFG300542
43	Spring Washer Φ5	RKFG300543
44	Spring Washer Φ6	RKFG300544
45	Spring Washer Φ8	RKFG300545
46	External Tooth Lock Washer Φ5	RKFG300546
47	External Tooth Lock Washer Φ6	RKFG300547
48	Flat Washer Φ8	RKFG300548
49	Large Flat Washer Φ8(H=3)	RKFG300549
50	Screw M6x12	RKFG300550

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnall Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

Product Description:	Petrol Powered Generator
Model number(s):	FG3005
Serial / batch Number:	N/A
Date of Issue:	10/04/2013
<i>(Noise Conformity)</i>	
Notified Body:	Societe Nationale De Certification ET D' Homologation S.A.R.L (SNCH) 11 Rout De Sandweiler 5230 Sandweiler Luxembourg
Technical Documentation Holder:	A.R. Pond Clarke International 2a Shrubland Road London E10 7RB UK
Conformity Assessment Procedure:	to 2000/14/EC Annex VI
Manufacturer:	Clarke International
Noise Related Value:	2.6 kW
Measured Sound Power Level:	94dB
Guaranteed Sound Power Level:	96 dB

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnoll Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2004/108/EC *Electromagnetic Compatibility Directive.*

2006/42/EC *Machinery Directive.*

2006/95/EC *Low Voltage Equipment Directive.*

2000/14/EC *Noise Emissions Directive, (amended by 2005/88/EC).*

97/68/EC *The Emission of Gaseous and Particulate Pollutants for Internal Combustion Engines to be Installed in Non-road Mobile Machinery, (amended by 2006/105/EC)*

The following standards have been applied to the product(s):

EN12601:2010, EN60204-1:2006, EN55014-2:2007+A1, EN61000-6-1:2007.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2011

Signed:



J.A. Clarke
Director

NOTES

NOTES

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS

AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

WELDERS

Mig, Arc, Tig and Spot.
From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

HYDRAULICS

Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS

All sizes for car and commercial use.



PARTS & SERVICE: 020 8988 7400

E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

Clarke® INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com